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(54) INITIAL HEATING METHOD OF MOLTEN STEEL IN INTERMEDIATE VESSEL IN CONTINUOUS CASTING OF STEEL

(57) Abstract:

PURPOSE: To maintain a casting temp. at a prescribed temp. from the beginning of casting and to execute stable casting without nozzle clogging by providing a molten metal well chamber of small volume in the intermediate vessel for receiving a molten steel from a ladle and heating the same by powerful electromagnetic induction in the initial period of casting.

CONSTITUTION: The molten steel 13 from the ladle 2 enters the inside of a tundish 1 and enters the molten metal well chamber 5 through a communicating hole 8 at the bottom end of a tunnel type gate 6. The molten steel is quickly heated by a coil 12 of a powerful electric power channel type induction heater 9 upon rising of the molten steel surface to the level 13a and is made to overflow at the level 13b so as to be poured from the nozzle 4. The molten steel 13 heated quickly up to the prescribed temp. in the chamber 5 of small volume is satisfactorily poured from the beginning without clog-

ging of the nozzle 4. The molten steel is poured always at the optimum temp. by the subsequent heating control by which the stable continuous casting is executed.

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